

**REMARKS**

By this amendment, claims 1, 6, 7 are amended, claims 12 and 13 are canceled without prejudice or disclaimer, and claim 14 has been added. These amendments are made to even more clearly recite the claimed invention, do not add prohibited new matter and are fully supported by the specification. Support for these amendments may be found, for example, on page 13, lines 11-14 and lines 26-31, of the specification. Reconsideration and withdrawal of the rejections in the outstanding Office Action are respectfully requested in view of the foregoing amendments and the following remarks.

**Claim Rejections – 35 U.S.C. § 101**

The Office Action asserts that claims 1, 6, 7, and 11-13 are directed to non-statutory subject matter, alleging that the claims do not recite a physical transformation of matter. Specifically, the Examiner maintains that the method claims do not produce a tangible result. The Examiner suggests that the rejection may be overcome by amending the claims to recite “outputting to a display, a user, or a readily accessible memory, computer or other computer on a network.” Without agreeing with or acquiescing to the rejection, Applicants note that the claims have been amended to recite “outputting at least one lead-candidate compound capable of binding to the protein to a display, a user, a readily accessible memory, or other computer on a network.”

Applicants respectfully request withdrawal of the rejections.

Claim Rejections – 35 U.S.C. § 102

The Office Action rejects claims 1, 6, 7, and 11-13 under 35 U.S.C. 102(b) as being anticipated by Wang et al. (J. Med. Chem., Vol. 37, pp. 4479-4489 (1994), hereinafter “WANG”). In response, Applicants respectfully submit that WANG does not anticipate the claimed invention.

Initially, Applicants note that independent claim 1 has been amended to recite “estimating a binding scheme of the lead-candidate compounds to the protein based on three-dimensional information and binding scheme of the query molecule to the protein and based on correspondence of the mode of covalent bonds of the partial structures of the query molecule and the trial compounds.”

WANG does not disclose, among other things, estimating a binding scheme of the lead-candidate compounds to the protein. Furthermore, WANG neither teaches nor suggests how the binding scheme of a lead-candidate compound to a protein may be estimated, based on “correspondence of the mode of covalent bonds of the partial structures of the query molecule and the trial compounds.”

For at least these reasons, Applicants respectfully submit that WANG fails to teach each and every element of the claimed invention, as required under 35 U.S.C. § 102(b).

Applicants respectfully submit that WANG does not anticipate the claimed invention, and request withdrawal of the rejection.

**CONCLUSION**

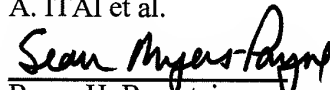
In view of the foregoing, it is submitted that the Examiner’s rejections should be withdrawn. Entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Commissioner determine that any extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. §1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. §1.17 to Deposit Account No. 19-0089.

If the Examiner has any questions, or wishes to discuss this matter, the Examiner is respectfully requested to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
A. ITAI et al.

  
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